Assuring the Quality of Future Victorian Teachers

ACER Response to DET Discussion Paper: Working Together to Shape Teacher Education in Victoria

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Introduction

In August 2016, James Merlino, the Minister for Education and Training in Victoria, presented a discussion paper on teacher education titled, "*Working Together To Shape Teacher Education in Victoria*."[1]

The Discussion Paper identified a number of proposals for improving teacher education, raising the status of the teaching profession and attracting a more diverse and high-quality cohort of entrants. The Minister invited comment on those proposals and this paper is ACER's response to that invitation.

[1] http://www.education.vic.gov.au/Documents/workingtogether.pdf

Executive Summary

Area of Focus 1: Raising the quality and status of teaching: a profession of choice

- High performing countries focus on recruitment; on ensuring salaries, status and working conditions attract sufficient numbers of talented people apply to meet the demand for new teachers.

- Victoria has a recruitment problem, much more than a selection problem. Only 25 per cent of Year 12 students entering teacher education programs in Victoria had ATAR scores above 70, compared with over 50% in most states.

- Research on effective teaching justifies setting high academic standards for entrants to initial teacher preparation programs and making evidence of relevant subject matter knowledge a necessary condition for admission.

- Setting high academic entry standards and ensuring diversity can go together.

Area of Focus 2 Ensuring high quality pathways into the profession

- While there are good reasons for encouraging older entrants, this strategy should be treated cautiously because most non-Year 12 applicants are less than 25 years old and their ATAR scores on average are significantly lower than applicants direct from Year 12.

Area of Focus 3: Improving course quality

- There needs to be a collaborative project among expert teacher educators and other stakeholders to delineate the knowledge and skills that beginning teachers should have mastered in their specific field of teaching. Victoria should take the lead in fostering the development of a *National Curriculum Project for Teacher Education.*

Area of Focus 4: Developing Early Career Teachers

- The time is overdue to treat initial professional preparation as consisting of two distinct but equally important stages; a university-based stage leading to graduation and a supervised induction or "residency" stage leading to registration, as happens in other professions. It is time to drop the notion that beginning teachers should be "classroom ready" at the point of graduation as argued in the TEMAG report.

About ACER

The Australian Council for Educational Research (ACER) is an independent, not-for-profit research organisation established in 1930 with more than 400 staff in offices around Australia and internationally.

ACER's mission is to create and promote research-based knowledge, products and services that can be used to improve learning across the life span.

ACER is one of the world's leading educational research centres. Our goal is to support learners, learning professionals, learning institutions and the development of a learning society through our work. ACER has built a strong reputation as a provider of reliable support and expertise to education policymakers and professional practitioners.

ACER has a long history of research into teacher standards, the quality of teaching, classroom practice and initial teacher education (ITE). ACER has been involved in national and international research into teaching such as the OECD Teaching and Learning International Survey (TALIS) and the Australia-wide Staff in Australia's Schools (SiAS) survey. In 2015 ACER was awarded the contract by the Australian Government to develop the literacy and numeracy test for ITE students and, in 2016, ACER was contracted by the Australian Institute for Teaching and School Leadership (AITSL) to develop the training materials for reviewers of ITE programs.

ACER is recognised as a leading developer and administrator of educational tests in Australia and internationally. ACER has a dedicated Assessment Services unit with extensive experience in the development, administration and reporting of high-stakes tests in the higher education sector. These include a range of higher education admissions and selection tests including medical and health science admissions tests such as the Graduate Medical School Admissions Test (GAMSAT) and the Undergraduate Medicine and Health Sciences Admission Test (UMAT), tests for international student admission (International Student Admissions Test, ISAT) and alternative and mature entry pathways (Special Tertiary Admissions Test (STAT), and uniTEST, a test that assists universities to assess the kind of generic reasoning and thinking skills that underpin higher education studies. Since 2016, ACER has administered the national literacy and numeracy test for ITE students for the Australian Government.

ACER is pleased to provide a response to the DET Discussion paper, *Working Together to Shape Teacher Education in Victoria,* drawing on its research expertise on teacher education and teaching quality and long experience of the assessment of students at tertiary level.

Commentary on the Focus Areas from a research perspective.

Area of Focus 1 Raising the quality and status of teaching: a profession of choice

'Our ambition: Teaching is a profession of choice for talented people from a range of backgrounds who have the capabilities and qualities to be successful in their studies and make excellent teachers.'

While this ambition should be a top priority, the Discussion Paper does not present any examples of policies and strategies designed to make teaching a profession of choice for talented people. Area 1 rightly calls for more valid and transparent selection methods, however, these alone will not ensure that greater numbers of talented people choose teaching as a career.

Area 1 focuses on selection, when the evidence indicates that Victoria has a recruitment problem much more than a selection problem. Over the past 10 years, teaching has become a much less attractive career option for academically successful students, particularly in Victoria. Table 1 shows that in 2016, only 25 per cent of Year 12 students entering ITE programs in Victoria had ATAR scores above 70, significantly less than other states. Thirty per cent had ATAR scores below 50.

Table 1: 2016 ATAR bands for Entrants to Teacher Education Programs						
STATE	0<50	< 60	<70	<80	<90	90.05+
WA	1	3	37.9	32.2	19.8	6.1
QLD	1.8	7.8	23.6	37.4	21.3	8.2
SA/NT	3.5	5.6	25.2	30.2	23.8	11.8
TAS	3.5	13.2	29.8	27.2	17.5	8.8
NSW/ACT	13.7	18.2	25.2	20.7	15.8	6.5
VIC	29.5	22.8	22.7	16	7.4	1.5
All university courses	**7.5**	**9**	**14.4**	**19.5**	**22.7**	**26.8**

Source: Based on data provided by the Department of Education and Training Higher Education Group

The situation is not unique to 2016. Victorian universities have been enrolling significantly greater proportions of students with ATAR scores below 60 than any other state for several years. Table 2 shows that, since 2012, most states except Victoria and NSW have increased the percentage of offers to Year 12 applicants with ATAR scores greater than 70.

Table 2: Percentage of offers to Year 12 applicants with ATAR scores greater than 70		
	2012	**2016**
NSW/ACT	50%	43%
Victoria	35%	25%
Queensland	52%	67%
WA	54%	58%
SA/NT	62%	66%
Tasmania	45%	54%

Source: Based on data provided by the Department of Education and Training Higher Education Group

Policies and strategies specifically designed to attract and recruit talented people will be needed if this trend is to be reversed. It is unavoidable that these policies will need to reform career pathways and include steps to lift the salaries that proven expert teachers can attain well beyond the top of the current incremental scale (Ingvarson, 2013; 2014). Research shows most talented and academically successful secondary students are not choosing teaching because of its perceived status and the eventual salary levels most teachers can attain (Stokes & Tyler, 2003; DEST, 2006). Working conditions are also important factors.

The first priority, therefore, must be policies that will ensure sufficient numbers of academically successful students apply for ITE places to meet the future demand for new teachers. Ultimately, this responsibility rests with government. Table 1 suggests Victoria is not meeting this responsibility as well as it might. It needs to be recognised that teaching sits within a competitive labour market. Policies are needed that will enable teaching to compete successfully with other professions if the current trend is to be reversed.

However, the current situation also implies that the Victorian Institute of Teaching (VIT) is having difficulty in carrying out one of its core functions effectively, which is to ensure that accredited providers only select students capable of engaging in a rigorous higher education program. The situation is not helped by the fact that responsibility for assuring the quality of teacher education programs falls between state and federal agencies; the VIT and TEQSA. The revised National Program Standard 3 on selection has significantly weakened the capacity of the VIT to disaccredit ITE programs enrolling most students with low ATAR scores.

While the Discussion Paper refers to selection practices in high-performing countries, it needs to be recognised that countries like Singapore, Taiwan and South Korea, are only able to set high entry standards because they have made the status, salaries and working conditions for teachers very attractive and comparable to other professions in the first place. Salaries for classroom teachers rise to more than twice starting salaries in these countries. In Australia they only rise to 1.4 times starting salaries. Significantly, they also lift status and entry standards by restricting teacher education to high status universities.

Relative salaries matter. Recent research (e.g. Carnoy et al., 2009) using Trends in International Mathematics and Science Study (TIMSS) data indicates that countries paying teachers higher salaries relative to other professions had higher student achievement in mathematics. Another study by Dolton and Marcenaro-Gutierrez (2011), using Programme for International Student Assessment (PISA) scores across 39 countries, found a 'highly significant and positive effect of teacher wages (relative to GDP per capita) on pupil test scores'. Significantly, a further study by Akiba et al. (2012) showed it was not the salaries for beginning teachers that distinguished countries with higher student achievement; rather the amount and the ratio of salaries of experienced teachers *relative to GDP per capita* was the critical factor.

These studies and others indicate that efforts to assure the quality of new teachers need to focus first on more effective recruitment policies. A reasonable recruitment goal for Victoria would be to ensure that over the next five years the proportion of entrants to ITE with ATAR scores above 70 matches the overall average proportion for all university courses, which is about 70 per cent.

To achieve this goal, the government should consider the introduction of a rigorous professional learning and certification system (Ingvarson, 2014). Its aim would be to drive professional learning toward high standards and promote widespread use of effective teaching practices. As a result, it can provide a basis for lifting teacher salaries to higher levels and thereby increase the attractiveness of careers in teaching. Salary increases beyond the top of the current salary scale for teachers who gain certification will also need to be substantial if the system is to achieve widespread engagement among teachers.

AITSL, in collaboration with stakeholders, is developing a certification system, which is now in the early stages of implementation. For this system to achieve its aims and increase the attractiveness of teaching, research will be vital to demonstrate its rigour as a reliable assessment of teacher performance and its ability to discriminate between teachers who have attained high performance standards and those yet to attain them.

Area of Focus 1 Raising the quality and status of teaching: a robust approach to selection

'What academic capability threshold should be set for entry into ITE?
What personal attributes are important to teachers? How might these be measured in the Victorian context?'

Points:

1) *Research on effective teaching justifies setting high academic standards for entrants to ITE programs and making evidence of relevant subject matter knowledge a necessary condition for admission.*
2) *Academic and non-academic criteria should not be treated as categories that can be equally weighted in any Teacher Admission Index.*
3) *After over 100 years of research, there is no evidence to support selection on the basis of non-cognitive personal attributes (or interviews) such as those listed in the Discussion Paper.*
4) *Setting high academic entry standards and ensuring diversity can go together. They should not be argued as mutually exclusive.*

There is plenty of research evidence that justifies setting high academic standards for entrants to ITE programs (Cochran-Smith & Zeichner, 2005; Darling-Hammond, & Bransford, 2005). Candidates with strong academic qualifications are more likely to be effective teachers, as measured by growth in students' test scores (Darling-Hammond, 2012). Verbal ability and scholastic aptitude also relate to eventual teaching effectiveness. Teachers cannot use effective methods for teaching and assessing student learning without deep knowledge of the subject matter they are teaching (Ball et al., 2008: Baumert et al., 2010; Goldhaber, Gratz & Theobald, 2016; Hill et al., 2005; Leinhardt, 1991; Stodolsky, 1988).

Countries that score highly on international tests of student achievement ensure that teaching is an attractive profession and that all ITE places are filled by academically successful students (Ingvarson et al., 2012). To gain entry to primary ITE programs, applicants usually complete courses in mathematics to Year 12 level successfully.

In the case of Taiwan, one of the highest scoring countries on TIMSS and PISA, entrants to primary teacher training must have completed a mathematics course at first-year university level. On graduation, their knowledge of the mathematics they are expected to teach is significantly higher than most countries (Ingvarson, et al 2013). In the case of Germany, future teachers must pass a subject-oriented state examination after a three- to four-year

'first university phase' before gaining entry to the 'second university phase' consisting of two-years of more practical teacher education.

While it is important to expand opportunities to gain a university education, this should not mean that students can be channelled directly into professional preparation programs like teacher education regardless of prior academic achievement. Entrants need to be ready to cope with a rigorous and specialised professional preparation program. Teacher education programs should not be remedial programs.

In selecting future primary teachers, it is appropriate to expect a track record of academic success in subject areas close to the core curriculum content areas they will be expected to teach, such as English, mathematics and science; for example, study scores above average study scores in each subject at Year 12.

The idea of a *Victorian Teacher Admission Index* needs to be treated with considerable caution. It should not adopt a compensatory approach to reaching a score; that is, it should not weight academic and non-academic criteria equally. It should not assume that a poor record of academic achievement can be made up for by a high score on personal attributes. A strong academic record, particularly the capacity for deep understanding of the subject matter to be taught, is a necessary, while not sufficient, condition for successful engagement in a rigorous professional preparation program.

The appropriate course of action is to use two stages in the selection process. The first is to set a high bar based on evidence of relevant academic achievement and aptitude, particularly in subject areas related to future teaching responsibilities – the necessary conditions. *(The NSW Minister for Education has declared that, from 2016, entrants to accredited undergraduate ITE programs must have achieved above average standards in at least three Year 12 subjects, including English. This seems to be a well-justified policy position that Victoria could consider.)*

Once these conditions are met, and there are more applicants than places, the second stage can come into play, based on other valid indicators of capacity to manage a rigorous teacher preparation program, but not before. This is the approach used in high-demand professional courses. Simply summing academic and non-academic criteria will undermine the validity of selection decisions.

The Discussion Paper lists a number of non-academic attributes that might be used in selection. Research does not support the use of current measures of any of these personal non-cognitive attributes as a basis for discriminating between applicants for ITE programs (Cochran-Smith & Zeichner, 2006). While non-cognitive attributes and attitudes such as motivation, caring, fairness, respect for students, peers, parents and the general community, enthusiasm, resilience, dedication to teaching, morality, ethics and a sensitivity to children's experiences are undoubtedly important, we simply do not have the ability to make valid assessments that would enable us to predict whether a person can or will manifest these attributes in their teaching four years later.

Current practices, wherein ITE providers build opportunities early in the course, particularly after school practicums, to assist student teachers in judging whether teaching is the career for them, provide a sounder basis on which to make these decisions. It is premature to make selection decisions on the basis of non-cognitive personal attributes that programs are in fact required to develop in future teachers, such as cultural sensitivity, communication skills,

resilience and organisational and planning skills, to help students meet the graduate level standards defined by the Australian Professional Standards for Teachers.

It is unlikely that setting higher academic standards would reduce the diversity of students entering ITE programs in Australia. Given the record of success of recent immigrants, the reverse may in fact be true. Special support should be given to programs such as the *More Aboriginal and Torres Strait Islander Teachers Initiative*[2], funded by the Australian Government.

Setting a high academic bar for entry, in itself can make a course more attractive to higher ability applicants. The reverse is also true however, as evidenced by the data above showing very low demand for ITE places among academically successful students. A recent OECD report points out that:

> *By raising the bar to enter the teaching profession, these systems discourage young people with poor qualifications from entering teaching and attract people with high qualifications. Capable young people who could go into high status occupations are not likely to enter an occupation that the society perceives as easy to get into and therefore likely to attract people who could not get into more demanding occupations* (OECD, 2011, p. 236).

Area of Focus 2 Ensuring high quality pathways into the profession

'Our ambition: there are multiple high-quality pathways into teaching that attract capable candidates and ensure a diverse and steady supply of teachers.'

It is often stated that only 25 per cent of admissions to ITE are based on ATAR scores. This statement is misleading for three reasons.

1) It combines entrants to undergraduate and graduate programs. One third of entrants undertake graduate programs. For those undertaking undergraduate programs in 2016, over 50 per cent of offers through Tertiary Admissions Centres (TACs) were made to Year 12 applicants based on ATAR scores mainly.
2) Non-Year 12 applicants who apply through TACs, do in fact have ATAR scores as most (66 per cent), are less than 24 years old. While their scores may not be the sole basis on which offers are made by providers, nevertheless these are still relevant in the current discussion. In fact, as Figures 1 and 2 below show, they are significantly lower than those for Year 12 direct applicants.
3) Nearly 40 per cent of applicants now apply directly to universities. Most also have ATAR scores but no centralised information is available about what they are. Direct applications are more likely to be made by mature age applicants.

While universities may admit students on criteria other than ATAR scores, this does not mean that it is of no public interest what those students' ATAR scores are as indicators of readiness for a demanding professional preparation program.

Figures 1 and 2 are based on Australia-wide data. Figure 1 shows the trend in ATAR scores for students admitted to undergraduate ITE programs *directly from Year 12* via a TAC

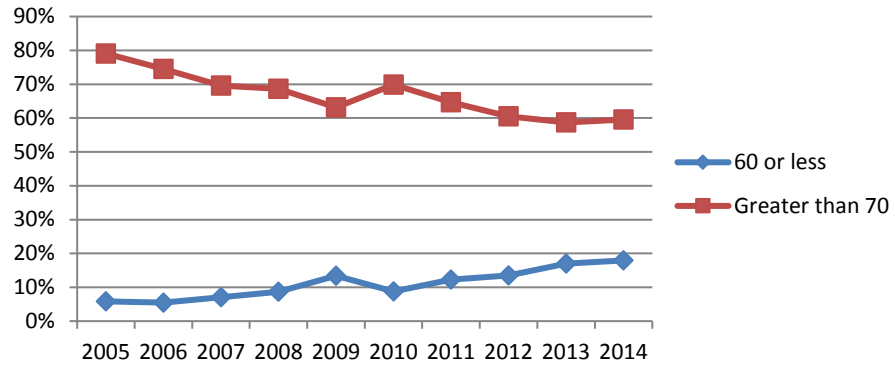
[2] http://matsiti.edu.au/wp-content/uploads/2014/09/MATSITI-Data-Analysis-Report-2014.pdf

(School leavers) from 2005 to 2014. It shows a steady decline (from 79.1 per cent to 59.5 per cent) in the proportion of entrants to ITE from the top ATAR bands (ATARs above 70), and a steady increase (from 6 per cent to 18 per cent) in the proportion lowest ATAR bands (ATAR 60 and below).

Figure 2 shows the corresponding trends in admissions for undergraduate ITE programs for students who also applied through TACs, but *one or more years after completing year 12*.[3] (66 per cent were aged 24 or less.) The proportion with ATARs above 70 has declined from 66.4 per cent to 30.9 per cent, while the proportion of entrants with low ATAR scores (ATAR 60 and below) has almost tripled (from 16.0 per cent to 47.2 per cent.

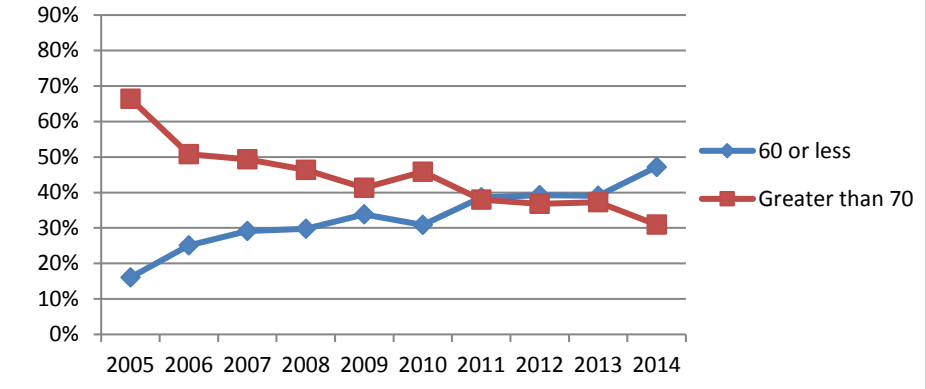
While not suggesting a direct link, these trends parallel the recent decline in Australia's performance on international tests of student achievement such as TIMSS (Masters, 2016).

Figure 1. Admissions to ITE programs by ATAR Band 2005-2014 (Direct from Secondary School)



Source: *AITSL Initial teacher education: data report 2015, Tables 19 and 20 and Department of Education and Training Higher Education Group*.

Figure 2. Admissions to ITE Programs by ATAR Band 2005-2014 (Applicants with Post-School Experience)



Source: *AITSL Initial teacher education: data report 2015, Tables 19 and 20 and Department of Education and Training Higher Education Group*.

[3] These students may have been admitted on a basis of other their ATAR.

Figure 2 indicates that, while there are good reasons for encouraging older entrants to ITE through a variety of pathways, this strategy should be treated cautiously and not be seen as a solution to the recruitment problem without suitable bridging programs to ensure capacity to participate in a rigorous professional preparation program, as required by the current National Program Standards. At present, older applicants to ITE programs on average have significantly lower ATAR scores than applicants direct from Year 12.

Area of Focus 3 Improving course quality

'Stakeholders need better access to information about course quality to shape ITE and target efforts to improve it. Currently, various national and state bodies collect data about the quality of teaching courses, however the efficacy and comparability of this data is limited.'

This section identifies a high priority. Valid and reliable measures are needed of what beginning teachers should have learned in their courses, not just self-reports about preparedness. What should a beginning primary teacher know about recent research on learning to read for example? What level of understanding should they have about the mathematics they will be expected to teach?

Although the Australian Professional Standards for Teachers emphasise, for example, that graduates should know the content they will be expected to teach and how to teach it, there is no detail about what this actually means for different subjects and different fields of teaching. What counts as meeting the standard is left unclear.

Before more valid and useful data can be collected about the quality of courses, there needs to be a collaborative project among expert teacher educators and other stakeholders to clarify and delineate the knowledge and skills that beginning teachers should have mastered, in other words, the development of a *National Curriculum Project for Teacher Education*. If teaching is to claim the status of a profession, there should be broad agreement about what beginning teachers should know and be able to do as a result of their preparatory courses, which goes deeper than the current generic Australian Professional Standards. What are the core teaching skills that beginning primary teachers should be able to demonstrate, for example? What should they be able to do to ensure students read well and read more?

This should be seen as a high priority that will foster valuable debate, especially among teacher educators, and greater agreement about what beginning teachers should have the opportunity to learn in their ITE courses. The present situation where ITE providers essentially do their own thing and the content of programs varies widely is not in the public interest or consistent with claims to professional status.

A current problem is that there are several agencies competing to define the requisite knowledge for graduate teachers (Lloyd, 2013). These include curriculum authorities, AITSL, AQF, SCSEEC and ACECQA (Australian Children's Education and Care Quality Authority). While the Australian Professional Standards for Teachers are seen as the de facto knowledge base for all initial teacher education programs, they have severe limitations as a description of what new teachers should know and be able to do. There are also major differences between the AITSL definition and the model outlined by TEQSA, which defines learning outcomes in terms of (a) Knowledge, (b) Skill and (c) Application of Knowledge and Skill.

The validity and utility of (much-needed) measures of the quality of ITE courses would be greatly assisted by a concerted and collaborative project to develop a National Curriculum for Teacher Education, designed to articulate in broad terms what future teachers should have the opportunity to learn as part of their professional preparation.

Area of Focus 4 Developing Early Career Teachers

'We need to strengthen current approaches to induction, mentoring, support for quality professional learning and career growth. What can we learn from what is currently working well in induction and what is not?'

The time is overdue to treat ITE as consisting of two distinct but equally important stages: a university-based stage leading to graduation and a supervised induction or 'residency' stage leading to registration, as happens in other professions. While the first stage is an essential foundation in terms of professional knowledge, the second stage of further standards-guided professional learning around aspects of teaching that can only be developed effectively when new teachers begin to work in schools, is equally essential; for example, application of teaching skills, classroom management and reporting to parents are areas for which new teachers consistently report feeling unprepared.

It is time to drop the notion that beginning teachers should be 'classroom ready' at the point of graduation as argued in the Teacher Education Ministerial Advisory Group report TEMAG, 2014). It is no more realistic than expecting medical graduates to be ready to practice alone, unsupported and unsupervised. Every teacher knows the first year is a steep learning curve and that it takes at least two to three years to find your feet and meet challenging teaching standards. It may be unrealistic to expect every school to be able to provide an effective and well-resourced induction program with trained supervising teachers.

AITSL and the Australasian Teacher Regulatory Authorities are leading work on a consistent framework for registration of teachers in all states and territories. This work will need to be accompanied by the development of clear expectations for the opportunities new teachers will have for effective professional learning and supervision during the induction period.

Although there is more work to be done, educators and researchers in Australia, working together, can develop a nationally consistent system for assessing provisionally registered teachers as well as national consistency in setting standards for registration.

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